

Notice of Allowability

Application No.

10/602,462

Examiner

Tianjie Chen

Applicant(s)

BEDELL ET AL.

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to telephone interview conducted on 02/12/2008.
2. ☒ The allowed claim(s) is/are 25-50.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 02/12/2008.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.


TIANJIE CHEN
PRIMARY EXAMINER

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Dominic M. Kotab on 2/12/2008.

The application has been amended as follows:

- In claim 25, line 4; "a channel" has been changed to --a channel with a plurality of turns--.
- In claim 25, line 6; "the channel" as been changed to --the channel with a plurality of turns--.
- In claim 36, line 4; "a channel" has been changed to --a channel with a plurality of turns--.
- In claim 36, line 6; "the channel" as been changed to --the channel with a plurality of turns--.
- In claim 37, line 6; "at least one channel" has been changed to --at least one channel with a plurality of turns--.
- In claim 37, line 7; "the channel" has been changed to --the channel with a plurality of turns--.
- In claim 38, lines 3-4; "at least a channel" has been changed to --at least a channel with a plurality of turns--.

- In claim 38, lines 5-6; "the at least one channel" has been changed to --the at least one channel with a plurality of turns--.

Reasons for Allowance

2. The following is an examiner's statement of reasons for allowance:

- With regard to independent claims 25, 36, and 37; as the closest reference of record, Sato (US 6,757,133) discloses magnetic head, comprising: an underlying layer, the underlying layer being electrically insulating; a photoresist layer positioned adjacent the underlying layer and having two opposing sides defining a channel with a plurality of turns, a bottom of the channel extending between the opposing sides being defined by the underlying layer; and a coil structure formed of a conductive material situated in the channel with a plurality of turns; **but fails to show** that a profile of each of the sides of the photoresist layer that define the channel includes a first segment and a second segment that is contiguous with the first segment, the first segment defining a first angle relative to a plane of deposition of the photoresist layer, the second segment defining a second angle relative to the plane of deposition of the photoresist layer, the second angle being different than the first angle, wherein the first segment of each side of the photoresist layer is positioned below the second segment located contiguously thereto, wherein a height of the first segment of each side of the photoresist layer measured perpendicular to the plane of deposition of

the photoresist layer extends from the underlying layer to a point between 20% and 80% of a total channel height from a top of the channel.

- With regard to independent claim 38; as the closest reference of record, Sato (US 6,757,133) discloses a magnetic head, comprising: an insulating layer; a photoresist layer positioned adjacent the insulating layer for defining at least one channel with a plurality of turns; and a coil structure defined by a conductive material situated in the at least one channel; **but fails to show** that the photoresist layer does not overlay the coil structure; wherein a profile of the channel includes a first segment defining a first angle relative to a plane of deposition of the photoresist layer, and a second segment continuous with the first segment, the second segment defining a second angle relative to a plane of deposition of the photoresist layer, the second angle being different than the first angle.
- Applicant declares; "The present invention relates to magnetic head coil Structures, and more particularly, this invention relates to improving the fabrication of high aspect ratio and narrow coil pitch magnetic head coil structures" (Specification, p. 1).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tianjie Chen whose telephone number is 571-272-7570. The examiner can normally be reached on 8:00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


TIANJIE CHEN
PRIMARY EXAMINER